

Remarks

Claims 1-40 are pending in this application, claims 12-17 and 22-40 of which are withdrawn from consideration. Claims 1-11 and 18-19 stand rejected under 35 U.S.C. Section 103(a) in view of the proposed combination of Barnum and Stege. Additionally, claims 20-21 stand rejected under 35 U.S.C. Section 103(a) in view of the proposed combination of Barnum et al., Stege and Deshautreaux Jr.

Applicant respectfully traverses the rejection of all claims under 35 U.S.C. Section 103. The comments made in applicant's previously submitted Response A and Amendment B are relevant to the instant response but are not reiterated.

Claim 1 is directed to a flow control device including a valve in a housing, an actuator in the housing, a controller in the housing, and an external communication system operably connected to the controller. The claim further requires a magnetically actuated sensor operatively connected to the controller providing a first signal in response to the movement or presence of a magnetic field and requires a magnetic actuator external of the housing for generating the magnetic field.

U.S. Patent 5,331,619 to Barnum et al. is directed to a programmable control system for gas and liquid dispensing devices. Barnum fails to meet the claim requirements of a valve within the housing, an actuator portion within the housing and a magnetic actuator external of the housing for generating the magnetic field. The Examiner agrees when he states that Barnum discloses "a magnetic actuator external of the housing for generating the magnetic field (column 12, lines 24-35), whereby each push button switch is external of the housing and is associated with a hull sensor and therefore must contain an actuator capable of generating a magnetic field to trigger the hull sensor (e.g. a magnet). However, Barnum does not explicitly teach that the valve is located within the housing, nor that the actuator portion is also located in the housing and is not probably connected to and positions the valve". Therefore, both the Examiner and applicant agree that claim 1 is novel in view of Barnum.

Moreover, there is no suggestion or reason in Barnum that would cause a person of ordinary skill in the art to modify Barnum to result in the claimed invention. Consequently, the invention as claimed in claim 1 is submitted to be patentable in view of Barnum.

U.S. Patent 6, 044,857 to Stege does not remedy the deficiencies of Barnum et al. Stege is an electronic controller for a modulating valve. Stege does not show claim 1's requirement of "an external communication system operably connected to the controller and providing control signal input thereto; a magnetically actuated sensor operably connected to the controller and providing a first signal thereto in response to the movement or presence of a magnetic field; and a magnetic actuator external of the housing for generating a magnetic field".

Therefore the claimed invention is novel in view of Stege.

Additionally, Stege makes no suggestion of any teaching or reason to modify Stege to result in the invention as claimed in claim 1. Consequently, claim 1 is submitted to be patentable in view of Stege.

Moreover, there is no reason in Stege or Barnum et al. to make the combination of Stege and Barnum et al. Stege relates to a modulating valve controlled by a source of air pressure (Stege, column 1, lines 13-15), while Barnum relates to gas and liquid dispensing devices with particular emphasis on plumbing systems for prisons (Barnum, column 1, lines 41-57 and line 62). A person of ordinary skill in the art would not normally combine two such disparate references without a reason to do so. No such reason has been identified and the proposed combination cannot be made.

There is also no reason to modify the combination, once made, to reach the claimed invention.

Applicant submits that none of the cited prior art, including both Stege and Barnum et al., shows a flow control device which receives both a control signal input from an external communication system as well as includes a magnetically actuated sensor providing a first signal in response to a magnetic field generated by a

magnetic actuator external of the housing of the flow control device. Effectively, the flow controller must receive control signal input from an external communications system as well as a first signal from a magnetic actuator external of the housing.

In both the case of Stege and Barnum, this requirement is not met inasmuch as neither reference shows the provision of multiple signals as claimed for the control of the flow control device. Applicant submits that the Examiner's arguments relative to the obviousness of combining Stege and Barnum fail to address the requirements of the external communications system. Thus even if a person of ordinary skill in the art made the modifications as proposed by the Examiner, the resultant combination would still fail to result in claim 1.

For all these reasons, claim 1 is submitted to be novel and patentable over the proposed combination of Stege and Barnum, whether those references are taken singly or in combination.

Concerning the rejection of dependent claim 3, applicant's comments on page 6 of Response A relative to the significant deficiencies of Stege are pertinent but are not repeated. Applicant submits that any combination of Stege and Barnum would be inoperable unless those deficiencies were addressed. It is submitted that a person of ordinary skill in the art would need a further reason to address those deficiencies and therefore claim 3 is submitted to have independent novelty and patentability in view of the proposed combination of Stege and Barnum.

Independent claim 4 states that the controller does not transmit the second signal if the controller determines that the controller has "an identity". There are no references in Stege or Barnum relative to "an identity" and claim 4 is submitted to be independently novel and patentable in view of Stege or Barnum whether taken individually or in combination. The Examiner's reliance on page 9, lines 2-14 of Barnum is submitted to be inappropriate inasmuch as this relied upon language determines how the master controller software polls its slaves and is not particularly relevant to the identity as described in the Specification, page 11, starting at line 16.

Claim 6 requires a flow control device including a valve within a housing and control circuitry operatively connected to the valve and controlling the position of the valve in response to a first condition. The claim also requires a magnetically actuated sensor detecting a magnetic field and initiating a control mode sequence in the control circuitry. This claim requires both controlling the position of a valve in response to a first condition and initiating the control mode sequence in response to the detection of the external magnetic field. The foregoing comments regarding Barnum and Stege are relevant and are not repeated for the sake of brevity, but essentially, applicant submits that neither Barnum nor Stege shows a flow control device with a valve within the housing and control circuitry controlling the position of the valve where the control circuitry also initiates a control mode sequence in response to the detection of the external magnetic field.

Dependent claim 10 is submitted to have independent novelty and patentability relative to the claim element "identity" for the same reasons that claim 4 was previously submitted to have independent novelty and patentability.

Claim 11 is submitted to be independently novel and patentable inasmuch as the proposed combination of Stege and Barnum fails to include or disclose controlling the valve position in response to temperature, pressure or a remote command while also initiating a control mode sequence in the control circuitry in response to a magnetic actuator external of the housing.

Claim 18 and its dependent claims are submitted to be novel and patentable for the reasons specified above with regard to claims 6 and 1.

Claim 20 adds the requirement of a magnetically moveable object in the magnetically actuated sensor and is rejected in view of a proposed combination of Stege, Barnum and Deshautreaux Jr. The comments above relative to Stege and Barnum et al. are relevant but are not repeated. Deshautreaux Jr. is a reed proximity switch and fails to disclose most of the claim elements including for example the actuator and the controller. Applicant submits that there is no reason in

Deshautreaux Jr., or in Stege or Barnum, to make the proposed combination and therefore this claim is independently novel and patentable in view of the proposed combination of Stege, Barnum and Deshautreaux Jr.

For the foregoing reasons, the rejections of the Office Action are requested to be reconsidered and withdrawn.

Respectfully Submitted,



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